

I CLAIM:

1. A ball grid array package comprising:

a chip including a substrate with a bottom surface;

5 a plurality of solder bumps projecting outwardly from said bottom surface of said substrate; and

an electromagnetic shield including a housing that defines an inner space which receives said chip and said solder bumps therein, and a bottom opening for access into said inner space;

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wherein said solder bumps project outwardly of said inner space through said bottom opening in said housing.

15 2. The ball grid array package of Claim 1, wherein said housing of said electromagnetic shield is connected directly to said substrate of said chip.

3. The ball grid array package of Claim 2, wherein said housing of said electromagnetic shield has a peripheral wall that surrounds said chip and said solder bumps.

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4. The ball grid array package of Claim 3, wherein said peripheral wall is formed with at least one side opening, said substrate having a corresponding tab projecting outwardly therefrom and extending transversely of said peripheral wall through said side opening.

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5. The ball grid array package of Claim 4, wherein said peripheral wall has a bottom end, said side opening extending to said bottom end.
6. The ball grid array package of Claim 3, wherein
5 said peripheral wall has a bottom end, two first recesses extending to said bottom end, and two vertical slits disposed between said first recesses to form a flexible part therebetween.
7. The ball grid array package of Claim 6, wherein
10 said flexible part is formed with a stop that projects into said inner space in said housing, said substrate being supported on said stop.
8. An electronic device comprising:
- a printed circuit board;
 - 15 a chip including a substrate with opposite top and bottom surfaces, and a semiconductor die mounted on said top surface of said substrate;
 - a plurality of solder bumps projecting outwardly from said bottom surface of said substrate
 - 20 and connected directly and electrically to said printed circuit board; and
 - an electromagnetic shield including a housing that defines an inner space which receives said chip and said solder bumps therein, and a bottom opening
 - 25 for access into said inner space, said housing having a bottom end that defines said bottom opening and that is connected directly to said printed

circuit board;

wherein said solder bumps project outwardly of said inner space through said bottom opening in said housing.

- 5 9. The electronic device of Claim 8, wherein said housing of said electromagnetic shield is connected directly to said substrate of said chip.